

CONFIDENTIAL

PENDING CLAIMS FOR U.S. SERIAL NO. 09/451,628

1. An apparatus for processing substrates, comprising:
 - a) a transfer chamber comprising one or more process access ports;
 - b) one or more load lock chambers disposable about the transfer chamber;
 - c) one or more process chambers disposable about the transfer chamber;
 - d) a plumbing tray disposable adjacent the transfer chamber and having facility connections for each process chamber and each load lock chamber; and
 - e) a chamber tray disposable adjacent each process chamber, each load lock chamber and the transfer chamber, each chamber tray in fluid communication with the facility connections of the plumbing tray, wherein each process chamber is disposable on each chamber tray.

8. An apparatus for processing substrates, comprising:
 - a) a transfer chamber comprising at least six process access ports;
 - b) one or more load lock chambers disposable about the transfer chamber;
 - c) one or more process chambers disposable about the transfer chamber;
 - d) a plumbing tray disposable adjacent the transfer chamber and having facility connections for each process chamber and each load lock chamber; and
 - e) a chamber tray disposable adjacent each process chamber, each load lock chamber and the transfer chamber, each chamber tray in fluid communication with the facility connections of the plumbing tray, wherein each process chamber is disposable on each chamber tray.

11. The apparatus of claim 28, wherein the modular unit is mounted to the transfer chamber at the access port.

12. An apparatus for processing substrates, comprising:

- a) a transfer chamber comprising one or more process access ports;
- b) one or more load lock chambers disposable about the transfer chamber;
- c) one or more process chambers disposable about the transfer chamber;
- d) a plumbing tray disposable adjacent the transfer chamber and having facility connections for each process chamber and each load lock chamber; and
- e) a chamber tray disposable adjacent each process chamber, each load lock chamber and the transfer chamber, each chamber tray in fluid communication with the facility connections of the plumbing tray, wherein each process chamber is disposable on each chamber tray and wherein the chamber tray is mounted separately to the transfer chamber.

13. The apparatus of claim 1, wherein the process chamber and the chamber tray are mounted to a support frame.

14. The apparatus of claim 13, wherein the support frame comprises rollable support members.

15. The apparatus of claim 1, wherein the chamber tray comprises an enclosure having one or more selected from the group consisting of a pneumatic distribution manifold, process gas manifold, vacuum manifold, water manifold, and helium manifold.

16. The apparatus of claim 15, wherein the enclosure comprises a plurality of facility connections disposed thereon that are in fluid communication with the facility connections of the plumbing tray.

18. The apparatus of claim 1, wherein the transfer chamber comprises at least one transfer means for moving work pieces to and from the load lock and process chambers.

19. The apparatus of claim 18, wherein the transfer means is a robot.

20. The apparatus of claim 19, wherein the transfer chamber comprises two transfer robots.

21. The apparatus of claim 20, wherein the transfer chamber further comprises at least one lift, the lift comprising a support shaft, pedestal, lift assembly, and rotational assembly.

22. The apparatus of claim 21, wherein the lift is rotatable to maintain an orientation of the work pieces as the work pieces pass between the transfer robots.

28. An apparatus for processing substrates, comprising:

- a) a transfer chamber comprising one or more process access ports;
- b) one or more load lock chambers disposable about the transfer chamber;
- c) one or more process chambers disposable about the transfer chamber;
- d) a plumbing tray disposable adjacent the transfer chamber and having facility connections for each process chamber and each load lock chamber; and

e) a chamber tray disposable adjacent each process chamber, each load lock chamber and the transfer chamber, wherein each chamber tray is in fluid communication with the facility connections of the plumbing tray, and wherein each process chamber and each chamber tray form a modular unit.

29. An apparatus for processing substrates, comprising:

- a) a transfer chamber comprising one or more process access ports;
- b) one or more load lock chambers disposable about the transfer chamber;
- c) one or more process chambers disposable about the transfer chamber;
- d) a plumbing tray disposable underneath the transfer chamber and having facility connections for each process chamber and each load lock chamber; and
- e) a chamber tray disposable adjacent each process chamber, each load lock chamber and the transfer chamber, each chamber tray in fluid communication with the facility connections of the plumbing tray.